

Title (en)  
Solid-state image pick-up device and manufacturing method thereof, image-pickup apparatus, semiconductor device and manufacturing method thereof.

Title (de)  
Festkörperbildaufnahmevorrichtung und Herstellungsverfahren dafür, Bildaufnahmevorrichtung, Halbleitervorrichtung und Herstellungsverfahren dafür.

Title (fr)  
Dispositif semi-conducteur de capture d'images et son procédé de fabrication, appareil de capture d'images, dispositif semi-conducteur et son procédé de fabrication.

Publication  
**EP 2242106 B1 20180613 (EN)**

Application  
**EP 10172157 A 20100129**

Priority  
• EP 10152062 A 20100129  
• JP 2009026368 A 20090206

Abstract (en)  
[origin: EP2216819A2] A solid-state image pick-up device (1) is provided which includes a semiconductor substrate main body (32) which has an element forming layer (39) and a gettering layer (33) provided on an upper layer thereof; photoelectric conversion elements (15), each of which includes a first conductive type region, provided in the element forming layer (39); and a dielectric film (34) which is provided on an upper layer of the gettering layer (33) and which induces a second conductive type region in a surface of the gettering layer (33).

IPC 8 full level  
**H01L 27/146** (2006.01); **H01L 21/322** (2006.01)

CPC (source: EP KR US)  
**A61B 5/14546** (2013.01 - KR); **G01N 9/36** (2013.01 - KR); **G01N 33/49** (2013.01 - KR); **H01L 21/3221** (2013.01 - EP US); **H01L 27/1464** (2013.01 - EP US); **H01L 27/14689** (2013.01 - EP US); **H01L 27/14698** (2013.01 - EP US); **H01L 31/18** (2013.01 - US); **H01L 21/76256** (2013.01 - EP US); **H01L 27/1203** (2013.01 - EP US); **H01L 27/14609** (2013.01 - EP US); **H01L 27/14632** (2013.01 - EP US); **H01L 27/14636** (2013.01 - EP US); **H01L 27/14643** (2013.01 - EP US); **H01L 27/14685** (2013.01 - EP US)

Citation (examination)  
• EP 0949689 A2 19991013 - SONY CORP [JP]  
• JP 2001168313 A 20010622 - SONY CORP

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
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**EP 10152062 A 20100129**; CN 201010107222 A 20100201; EP 10172155 A 20100129; EP 10172157 A 20100129; JP 2009026368 A 20090206; KR 20100007327 A 20100127; KR 20170006904 A 20170116; TW 99102144 A 20100126; US 201314044644 A 20131002; US 201414462284 A 20140818; US 69535510 A 20100128